Response to OA of 053008

Atty Docket 117163.00135

LISTING OF THE CLAIMS

We Claim:

1. (Currently amended) A one-piece expandable flat bearing structure comprising at least

partially elastically deformable struts which are separated from each other by openings in

the bearing structure, the struts including: wherein the bearing structure can assume at least

one compressed condition and at least one expanded condition and has at least one

expansion direction,

wherein:

the bearing structure has anchor regions from which spring struts having an anchor region

on a first end and extending to a resiliently deflectable second end, the spring struts being

which are elastically resilient with respect to the anchor regions extend to a resiliently

deflectable end of the spring struts, and

a-hinge strut struts adjoining said end spring struts at the resiliently deflectable

second ends of the spring struts, wherein a hinge axis is formed at the juncture of a spring

strut and a hinge strut, extending transversely with respect to the bearing structure, and

each hinge strut having a central axis,

wherein the bearing structure can assume at least one compressed condition and at

least one expanded condition and wherein the bearing structure has at least one expansion

direction, and wherein a reference axis extends within the bearing structure transversely

with respect to the expansion direction and transversely with respect to the hinge axis,

Akr - 156713.1 3

Response to OA of 053008

Atty Docket 117163.00135

wherein the spring struts and the hinge struts are of such a configuration and

arrangement that when going from a compressed condition to an expanded condition, the

spring struts are initially resiliently deflected transversely to the expansion direction during

the transition from the compressed condition to the expanded condition by the folding over

hinge struts initially folding-over and finally spring subsequently springing back, while a

respective the central axis of the hinge struts is simultaneously pivoted about a the hinge

axis extending transversely with respect to the bearing structure beyond athe reference axis

which extends within the bearing structure transversely with respect to the expansion

direction and transversely with respect to the hinge axis so that both the compressed

condition of the bearing structure and also the expanded condition of the bearing structure

is are stabilized by a spring action emanating from the spring struts.

2. (Previously presented) A bearing structure as set forth in claim 1, wherein a respective

spring strut adjoins both longitudinal ends of a respective hinge strut and said two spring

struts are so arranged relative to each other that they exert a moment in the same direction

on the hinge strut about the hinge axis.

3. (Previously presented) A bearing structure as set forth in claim 2, wherein the two

spring struts respectively adjoining a hinge strut are shaped and arranged in point-

symmetrical relationship with each other.

4. (Previously presented) A bearing structure as set forth in claim 1, wherein the bearing

structure forms a peripheral wall of a stent.

Akr - 156713.1 4

Response to OA of 053008

Atty Docket 117163.00135

5. (Currently amended) A bearing structure as set forth in claim 4, wherein the expansion

direction extends in the peripheral direction of the stent and the reference axis extends

parallel to or at a shallow angle to the longitudinal direction of the stent while the hinge

axis is oriented approximately radially.

6. (Previously presented) A bearing structure as set forth in claim 1, comprising plastic

material.

7. (Previously presented) A bearing structure as set forth in claim 1, comprising a

magnesium alloy.

8. (Previously presented) A bearing structure as set forth in claim 1, comprising a

bioresorbable material.

9. (Previously presented) A bearing structure as set forth in claim 1, wherein the openings

are cut so that the struts are separated from each other by cuts.

10. (Currently amended) A bearing structure as set forth in claim 9, wherein the cuts are of

such a configuration as to afford provide hinge struts which are S-shaped or W-shaped in

the compressed condition.

11. (Currently amended) A bearing structure as set forth in claim 10, wherein the cuts

have end regions which are of an expanded configuration to reduce the a notch effect.

12. (Previously presented) A bearing structure as set forth in claim 1, wherein in the

proximity of the anchor regions, the spring struts are of a larger cross-sectional area than in

the region of their resiliently deflectable ends.

Akr - 156713.1 5

Response to OA of 053008

Atty Docket 117163.00135

13. (Previously presented) A bearing structure as set forth in claim 12, wherein the spring

struts steadily taper from the anchor regions towards the resiliently deflectable ends.

14. (Previously presented) A bearing structure as set forth in claim 1, wherein the hinge

struts are of a substantially uniform cross-section transversely with respect to their central

axis.

15. (Previously presented) A bearing structure as set forth in claim 1, wherein a transitional

region of a cross-section which is reduced in relation to the hinge strut is provided between

a respective resiliently deflectable end of a spring strut and the hinge strut adjoining the

resiliently deflectable end.

16. (Currently amended) A bearing structure as set forth in claim 9, wherein the cuts have

end regions which are of an expanded configuration to reduce the <u>a</u> notch effect.

Akr - 156713.1